

WHAT IS CLAIMED IS:

1. A collection of particles comprising a multiple metal oxide having an average particle diameter less than about 500 nm wherein at least about 95 percent of the particles have a  
5 diameter greater than about 40 percent of the average diameter and less than about 160 percent of the average diameter.

2. The collection of particles of claim 1 wherein the collection of particle have an average particle diameter less  
10 than about 100 nm.

3. The collection of particles of claim 1 wherein the collection of particle have an average particle diameter less than about 50 nm.  
15

4. The collection of particles of claim 1 wherein at least about 95 percent of the particles have a diameter greater than about 60 percent of the average diameter and less than about 140 percent of the average diameter.  
20

5. The collection of particles of claim 1 wherein effectively no particles have a diameter greater than about four times the average diameter of the collection of particles.

25 6. The collection of particles of claim 1 wherein the multiple metal oxide comprises manganese.

7. The collection of particles of claim 1 wherein the multiple metal oxide comprises lithium.  
30

8. The collection of particles of claim 1 wherein the multiple metal oxide comprises vanadium.

9. The collection of particles of claim 1 wherein the  
35 multiple metal oxide comprises crystalline particles.

10. The collection of particles of claim 1 wherein the multiple metal oxide comprises amorphous particles.

11. A collection of particles comprising a multiple metal  
5 oxide having an average particle diameter less than about 500 nm wherein effectively no particles have a diameter greater than about four times the average diameter of the collection of particles.

10 12. The collection of particles of claim 11 wherein the collection of particle have an average particle diameter less than about 100 nm.

13. The collection of particles of claim 11 wherein the  
15 collection of particle have an average particle diameter less than about 50 nm.

14. The collection of particles of claim 11 wherein the multiple metal oxide comprises manganese.

20

15. The collection of particles of claim 11 wherein the multiple metal oxide comprises lithium.

16. The collection of particles of claim 11 wherein the  
25 multiple metal oxide comprises vanadium.

17. The collection of particles of claim 11 wherein the multiple metal oxide comprises crystalline particles.

30 18. The collection of particles of claim 11 wherein the multiple metal oxide comprises amorphous particles.

19. The collection of particles of claim 11 wherein  
effectively no particles have a diameter greater than about  
35 three times the average diameter of the collection of particles.

20. The collection of particles of claim 11 wherein effectively no particles have a diameter greater than about two times the average diameter of the collection of particles.